







# NEW YORK ZOOLOGICAL SOCIETY

FORTY-FIFTH ANNUAL REPORT
FOR THE YEAR 1940









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THE CITY OF NEW YORK

JUNE 1, 1941



AT LIBERTY ON LION ISLAND IN THE AFRICAN PLAINS

DESPITE the critical days this country is passing through, it is possible to report that the year 1940, for the Zoological Society, was one of unusual progress and development. This is no accident. It is affirmation of the fact that the Society, through the two institutions under its management, through its educational activities, through its scientific work, is providing the public not only with recreation in its true sense—but with influences that are steadily contributing to a better understanding of life as a whole. Expressed in its broadest terms, the Zoological Society exists in order to tell people the story and meaning of life on this earth as expressed through the myriad and varied forms of living creatures. In this sense our organization is an interpreter of Nature, and who is to say that the troubles civilization is cursed with today do not arise, in considerable part, from a lack of comprehension of Nature's laws?

We are proceeding on the principle that while the present vast preparations of the nation to cope with world conditions are paramount, it is, at the same time, necessary—in a sense more necessary than in normal times—to carry forward those activities which bring recreation and instruction to millions of people each year. There is another reason for proceeding vigorously with the work of institutions such as ours. Only in this hemisphere can it now be done. There is a saying of the Ancient Greeks, "Keep the torch alight."

In summarizing the more important events of the year, it is encouraging to report that the Society received cash donations aggregating \$121,667.81 for general development purposes. All of this money came from trustees and members of the Society and in it is included the magnificent gift which has made possible the creation of the new African Continental Exhibit in the Zoological Park. These funds have also met the cost involved in the preparation of comprehensive and detailed plans for the future development, unit by unit, of the entire 240 acres in the Park, including the areas immediately east and west of the Bronx River and Lake.

Why should we continue to receive funds and for what new purposes will they be used?

First, we are developing new conceptions of what a zoological park or aquarium should be. For the first time in any zoological park here or abroad, we are carrying out plans, on a broad scale, of exhibiting our living collections according to their distribution by continents. This is a basic change, and will provide the public with an infinitely clearer understanding of the history and relationships of animal life on this earth.

Further, we are determined, insofar as possible, to take our animal collections out "from behind the bars." This will result in liberating our unique collections from many of their present types of enclosures. The animals are entitled to it, and the public will get a far better conception of the beauty and behavior of animal life if we carry through a general program of exhibiting our collections in areas expressive of freedom and of natural environment. From the point of view of public psychology this is of vital importance.

We are making another departure. On the entrance walls to the new African Exhibit there will be written by means of legend-maps the story of the development of life on the continent of Africa through tens of millions of years. We believe this presentation will prove to be an example of popular education in zoology in its most effective form.

The fact that we are proceeding with a number of new developments at the Zoological Park does not mean that new ideas for the Aquarium are lacking. But the solid walls of that century-old building prevent their application. Only through the medium of a new Aquarium building can justice be done to the miracle of marine life presented through modern exhibition technique.

Major changes have taken place in administrative personnel. W. Reid Blair, after thirty-eight years of splendid service with the Society, retired as Director of the Zoological Park on May 1. H. R. Mitchell, who had capably and conscientiously served as Manager of the Zoological Park since 1899, retired from active duty at mid-year. In July, Allyn R. Jennings was appointed General Director of the Zoological Park and the Aquarium, and Harry Sweeny, Jr., was appointed Assistant General Director of these two institutions, Dr. Breder continuing as Director of the latter institution.

Our intention of pressing forward with scientific work is exemplified by the fact that in 1940 a larger amount of the Society's funds was allocated for research than in any previous year in the history of the

Society. It will be recalled that in addition to research work, which has been carried forward for a number of years in the laboratories at the Zoological Park and the Aquarium and in the laboratory of the Tropical Research Department, the Society has been servicing medical and other research institutions with valuable material. We are now working on a plan whereby the Society may become a research center, not only for the Greater City of New York, but for the country as a whole, for the study of animal diseases in their relationship to human disease problems. Leaders in various fields of research, including men directly engaged in the medical profession, are helping us in formulating this program. We hope to gain the financial support, during the year 1941, which will enable us to get this project under way. Its significance in connection with human health may well be greater than any of us can now foresee.

The Society's exhibit at the World's Fair provided enjoyment and instruction to 399,000 visitors. This enterprise has proved of value to the Society in many different ways and should be a matter of lasting satisfaction to the generous group among our trustees who made it possible.

Under a grant from the Rockefeller Foundation, a survey has been completed of existing films in the field of zoology and allied sciences. This survey reveals a dearth of popular instructional film material on zoological subjects. A series of film scripts of a new type is now being prepared.

There has been active collaboration between other institutions and the Society. For example, the American Museum of Natural History has aided us in the preparation of the African Exhibit and its educational material; it also held a special exhibition of portraits from the Society's wild life gallery. The New York Botanical Gardens, our good neighbors in Bronx Park, supplied us with valuable technical advice on the land-scaping of the African Plains area, as well as providing exotic plant material for several of our exhibits. We are also receiving aid from the Metropolitan Museum of Art and the Brooklyn Museum in connection with exhibits of animal sculpture and portraiture. The Society, for its part, is doing its best to reciprocate

During the year we arrived at an understanding with the Commissioner of Parks, which will involve the transfer to the City of an area on the west boundary of the Zoological Park for recreational playground purposes, in return for which the Department of Parks is to arrange for the construction of our proposed new North American Continental Exhibit area in the vicinity of Lake Agassiz. This project should prove

a close second in interest to the new African Continental Exhibit. It is expected that a definite agreement regarding this will be entered into during 1941. This incident is reported here because it exemplifies the spirit of cooperation which exists between the Society and the City government. The Mayor and the Director of the Budget have likewise recognized the problems that we must meet in carrying forward the present program of increasing our services to the public and on more than one occasion have extended such aid as the circumstances justified. Nothing could be more obvious than the fact that the success of our future development depends in a major degree upon such wholehearted collaboration.

\* \* \*

The year was marred by the loss of two men who have meant a great deal to the Society. W. Redmond Cross, who died suddenly in November, had served as a Trustee since 1919 and as President from June, 1937, to June, 1940. He was an intense believer in what the Society stood for—and in its future. He was a man of unusual thoroughness and conscientiousness. He fully accepted the responsibilities of trusteeship and gave generously of his time and energy. The activity and interest of earlier years naturally increased even further during the time in which he served as President. It may be truly said that over a period of twenty years his contributions to the Society's welfare were innumerable and cumulative, and their effect will live on through the years to come.

Edward S. Harkness, who died in January, had served as a Trustee since 1910. Despite his many other interests he maintained active contact with the Society, was helpful in counsel, and made generous gifts towards its support.

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The reports which follow are presented in a more simplified form than that adopted previously. It is believed, however, that they will provide a comprehensive story of the year's activities.

FAIRFIELD OSBORN, President



PORTRAIT OF AN INDIAN RHINOCEROS



LEOPARD FISH FROM THE EAST INDIES

### **ACTIVITIES OF 1940**

#### **FOREWORD**

A S evidence of the integration of all activities of the Zoological Society, the shackles of precedent are loosed in this report, which will not be an orthodox presentation of a mass of detail—some of it interesting and some of it boring—but which will highlight the achievements of 1940, with now and then a hint of what is in store for 1941.

#### THE COLLECTIONS

Chapter 435 of the New York State Laws of 1895 incorporated the New York Zoological Society with power to "establish, maintain and control collections for the promotion of Zoology and kindred subjects, and for the instruction and recreation of the people." Paramount, therefore, is the importance of our collections, which can be said with pardonable pride to be the finest and most complete in the world today.

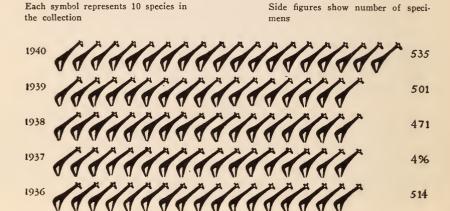
#### ZOO COLLECTION

Figures at top, left, represent number of species in the collection Figures at top, right, represent number of specimens in the collection

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-	20	2	20	20	20	<sup>19</sup> 38	20	20	A		20	
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	20	20	20	20	20	1936	20	20	20	R	12	1

No breakdown into the number of specimens of various species within the multitudinous Orders will be attempted here. Recognizing, however, that some are interested in this type of classification, lists have been prepared, setting forth the census in detail, including accessions and births and losses throughout the year, and members may receive them promptly upon request.

#### **MAMMALS**



The Zoo's collection of mammals, the mainstay of any zoological garden, has been augmented and diversified, and 1940 showed the greatest number of species in more than a decade, with the end of the year census indicating 535 specimens of 192 species.

In accordance with a program of herd improvement, forty-six surplus animals were sold or exchanged during the year, and forty-three animals were born. Revised breeding schedules calling for acquisition of new animals are in force, and it is definitely certain that the herds will shortly again be regarded as the best of their kind. The importance of breeding is paramount. More attention must be given to the increase of collections by this manner, for dependence upon importation from the wild cannot continue. For instance, the Zoo's last Hartmann Mountain Zebra has died and this species has become so rare in its native terrain that it is practically impossible to obtain a replacement.

Fortunately, few rare animals were lost by death in 1940. The hardest

loss to bear was that of the male giant Panda. Received with a serious digestive disorder, he never fully recovered, and although his weight doubled during his residence in the Zoo, he was unable to survive a recurrence of his old malady. Old-time favorites lost to the collection included Jimmy, the fourteen-year-old Babirusa, and Paul Rainey's Silver Queen, the Polar Bear which was known to millions of visitors during her thirty years of exhibition.

Highlighted among accessions were two importations of African Antelopes and Zebras brought back by Radioman Vida of the SS "City of New York." These two shipments included three Chapman's Zebras, two Elands, two Springboks, two Hartebeests, a Cape Buffalo and various other mammals and birds. Vida has become the Society's chief source of supply from the continent on which so much interest will be focused when the new Plains area will be completed this year. Cap'n Bob Bartlett brought back four baby Walruses from his annual Greenland cruise, but unfortunately none of them survived, evidence that it is next to impossible to bring such unweaned specimens to maturity. By way of contrast, the four young Muskoxen which he brought in 1939 are thriving. Two infant female Chimpanzees, Karema and Kukuna, were purchased with the unexpended balance in the account of the Junior Auxiliary. A pair of Klipspringers born to the St. Louis Zoo herd was purchased in August. Shortly after the animals were received, the mother had a baby but refused to nurse it and the artificial means failed to keep it alive. Soon afterward the male parent died through an apparent allergy to oak leaves. The mother remains one of the most interesting antelope exhibits.

Three young Indian Elephants, a pair of Dromedaries, a young Bactrian Camel, five two-year old Lions and two young Siberian Ibexes were acquired by purchase.

Native domestic animals had never been exhibited in the Zoo until an historically interesting specimen, a fine Texas Long-horn Steer, was presented by Paul Whiteman in the fall. This animal will eventually be exhibited in a Model Farm Group, which is under W.P.A. construction east of the Bronx River, and which will be opened to the public in the fall of 1941. Here as many farm animals as possible will be shown to city-bred boys and girls, many of whom never had the opportunity to see mares and colts, cows and calves, ewes and lambs, sows and pigs and geese and goslings together.

Organization changes have placed Dr. C. W. Leister, formerly assistant to the Director, as Curator of the Department of Mammals. Dr.

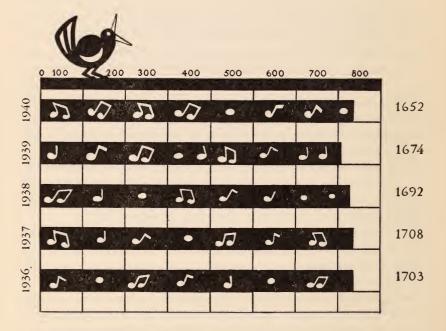
Leister continues his duties as Curator of Educational Activities. Dr. Raymond L. Ditmars retains the Honorary Curatorship of Mammals, but has broadened his activities to head the newly-created Department of Insects, along with his long and noted Curatorship of Reptiles.

William T. A. Cully, a long-time keeper in charge of the Kangaroo and Wild Swine collection, has been promoted to Head Keeper of the Department.

#### BIRDS

Figures at top represent number of species in the collection

Side figures show number of specimens



War in Europe did not have its anticipated effect on the status of the collection, a number of birds from Africa and Asia continuing to be received. South America, which had been expected to be a fertile source for extension of the collection, proved disappointing. The year's total of forty-three species new to the collection is second to the record of forty-five obtained the year before. Several important gifts helped to swell the general total, including twenty-two birds presented by Orlando

Weber, Jr., seven by John H. Phipps, a fine young male South American Condor brought from Chile by Captain C. T. Moritz, and several southern Green Toucanets and Chavez's Jays from Director Bean of the Chicago Zoological Park. A female Kea, while not a species new to the collection, was acquired to alleviate the loneliness of the twenty-year old male, through the generosity of Director Mann of the National Zoo in Washington. Through the courtesy of the Eastern Air Lines, this young bird, accompanied by the General Director and the Curator of Birds, was flown up from Washington during Thanksgiving week. Romance has not materialized, for the newcomer immediately preempted the oldster's sleeping quarters, and the present installation in their cage consists of twin hollow logs. A local expedition by Keeper Scott added an especially fine Golden-fronted Green Bulbul to the collection. It was captured on the lawn of Edward S. Lloyd in Yonkers, where it had dominated his garden with color and song for several weeks.

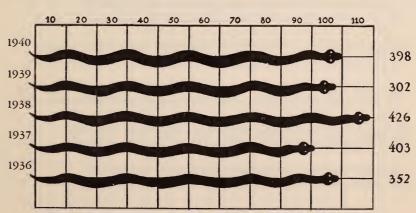
The important accession of the year was the major part of the collection of the late Pompeo Maresi, which included many great rarities, and from which forty-six birds of forty species were purchased. Fourteen species were new to the collection.

Head Keeper Samuel Stacey reaches retirement age in 1941, but in recognition of his value, his services will be continued for one year.

#### REPTILES

Figures at top represent number of species in the collection

Side figures show number of specimens



New and interesting accessions came from the Argentine, including the striking western Argentine Boa, a burly reptile, fully as large as the tropical Boa Constrictor. New specimens of Indian, Malaysian and African Pythons were also received.

An exhibit with proved popular interest and educational appeal is the series of eight habitat cases, in which are housed snakes found in the northeastern states. A map indicating ranges of the various species provides an aid to visual instruction.

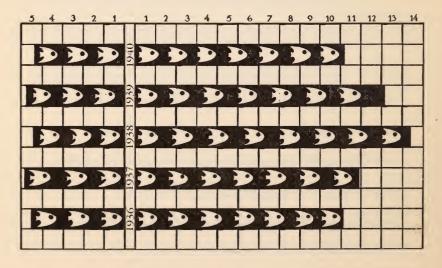
Head Keeper John Toomey, forty years in the Zoo, has been retired and Fred Taggert has been named Head Keeper of the Department, to which have been assigned two new young keepers of wide herpetological experience.

The formation of the new Insect Department has been studied in detail, tentative plans have been drawn for housing the collection (which is non-existent save for interesting colonies of Parasol Ants) and arrangements are being made for the collection and shipment of insects from many quarters of the globe.

# AQUARIUM COLLECTION

Each figure at top, left, represents 100 species in the collection

Each figure at top, right, represents 1,000 specimens



The census of fishes can run into figures approaching the astronomical. Nearly 100,000 eggs were incubated in the Aquarium and their larval and fingerling stages never fail to excite the interest of visitors. The public-spirited character of much of this work is evidenced by the issuance of fry and fingerlings for stocking purposes to eight public bodies of water.

The ten thousand-odd specimens of 436 species is a bit lower than the 1939 census. Arrangements worked out for the collection of local fishes, particularly through the cooperation of Robert Doxsee from whom we receive many interesting exhibits, as a by-product of his commercial fishery on Long Island, are counted on to add new species. Although there was no great increase in the more exotic species from other waters, the Aquarium acquired a fine group of West Indian fishes, including a few specimens of the hitherto elusive Rock Beauty, only one specimen of which had ever been shown to the New York public. Following suggestions made by the Aquarium staff, a collector succeeded in obtaining a quantity of these handsome representatives of the Angelfish family by the simple method of swimming under water to a point below the school and literally rounding them up to the surface where they were easily captured by the boatmen's scoop-nets.

Nearly five hundred specimens of twenty-five species of colorful Florida coral reef fishes were purchased, while from the Society's station at Palmetto Key two hundred specimens of invertebrates, such as Star Anemones, Starfish and the like, found their way into the Aquarium tanks. The purchase of a small collection of East Indian fishes brought in a number of specimens of a new and larger species of Clownfish, which has not been shown in New York before.

The usual routine collections by the Aquarium staff netted thousands of specimens of a number of species from upstate streams and lakes, from the lower Bay and from the larger lakes in the City Park system.

The Aquarium, as usual, became a depository for many gifts, including the inevitable torrent of alligators brought back by Florida vacationers. The passing of the glory that was the New York World's Fair was brilliantly reflected by the accession of 250 colored fishes which had adorned garden pools in the exhibits of the United States of Brazil and of the Equitable Life Assurance Society. Of special note, however, were 134 valuable specimens of both marine and fresh water tropical species collected from Sumatra, Java, the Celebes and Straits Settlements by Jac. Erenstein, engineer of the motor vessel "Poelau Laut."

#### TRANSIENT VISITORS

Measures were taken to extend the length of stay and comfort of migratory wild fowl. An appropriation of \$1,500 was made by the Society's Conservation Committee to defray the cost of extra grain, for which there was no budgetary allowance. The increased feed was a factor in attracting many more birds than usual, especially Black Ducks and Canada Geese. Another step toward the protection of the nesting wild fowl throughout the Park has been a concerted drive on rats. Selected keepers with .22 caliber rifles accounted for 800 in a campaign lasting only fourteen weeks before the end of the year. This will be continued.

#### HEADS AND HORNS

The collection, which is probably the finest in the world, was increased by the donation of a tiny Livingston's Suni taken in the Kenya colony and presented by John D. Rockefeller, Jr. Mrs. E. M. Douglas presented a prize-winning head of a White-tailed Deer, which was taken in Putnam County and which had received a national championship award.

The year was marked by the retirement of Martin S. Garretson, who had been the curator of the collection for seventeen years, and under whose sympathetic direction the Museum had built up its magnificent group of specimens. His place has been taken by Frank Schleicher, who came to the Society from the American Museum of Natural History.

#### WELL-BEING

The census of animal collections would decrease alarmingly if the health of our thousands of living creatures was not the constant concern of those of the staff charged with the study and prevention of illness and disease.

From the seventh annual report of the Society is quoted: "It is a fortunate circumstance that every loss to the Society in the Zoological Park is not a real loss to the City; it is instead a gain, because all rare and valuable animals are immediately transferred for taxidermic and scientific purposes to the American Museum of Natural History and become a part of the exhibitions in that institution." While this philosophy may have been somewhat of a solace, gratification increases in direct proportion to the decline of generosity to a sister institution, which last year received 172 specimens for study and mounting.

#### WELL-BEING-MAMMALS

Symbols used in charts on Well-being

#### Above the line

Births

+ + Gifts to the Zoo

Animals purchased

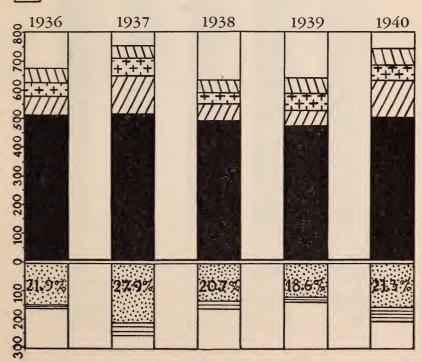
Census (number of animals in collection at beginning of year)

#### Below the line

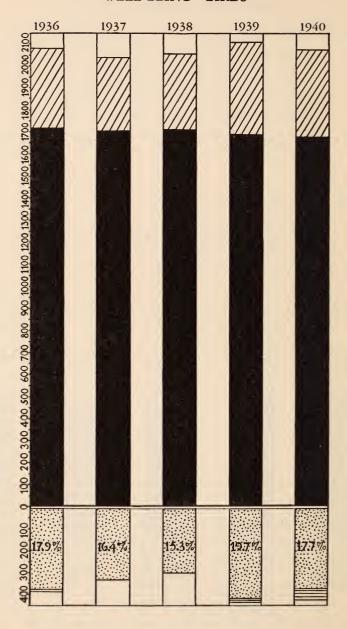
Mortality

Percentage of mortality based on total number of specimens in collection during year

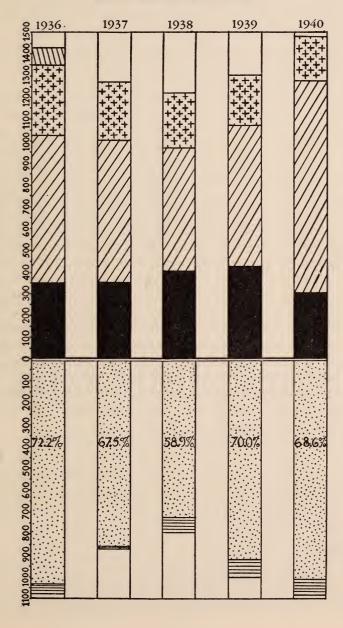
Disposals (gifts from the Zoo, sales, etc.)



# WELL-BEING—BIRDS



# WELL-BEING REPTILES



Mortality decreased in the Zoo, whose records begin with every animal on the date of acquisition. There were no serious epidemics in the Zoo's collections, except for a baffling series of deaths among the Sea Lions.

Various changes in the dietary system have been put into force and it is hoped that not only an improvement in general health, but increased fertility of the collections will result.

There was a slight increase of mortality at the Aquarium. While the difficulty in the control of temperature and circulation in the new distribution system which has been tacked on to the ancient plant has caused increased mortality among fresh-water specimens, the health of the marine group was bettered by limiting the collections to smaller numbers and by a significantly satisfactory control of parasites through the application of new prophylactic and therapeutic measures. The closed circulation system was practically in an experimental stage and the mortality of the fresh-water collection should be lessened in the current year. It is gratifying that the longevity of the species of fishes which died has been extended from nine months in 1936 to fourteen months in 1940.

While there is a tendency to build up more lasting immunity, parasites or infectious diseases continue to be the bane of the Aquarium pathologist, fifty per cent. of the losses being due to these causes. Fortunately, no new disease or parasites of serious moment were encountered during the year. Meanwhile, out of the test tubes of experience appear factors in the control of fish diseases. Limitation in the numbers of individual specimens, together with a better understanding of proper times to collect, segregation of susceptible species, regular periodic treatment of fish subject to parasites and better temperature control, all unite to lessen the mortality curve.

Several new drugs developed during the year for human and animal use have been used in the Park hospital. The duties of the Veterinarian have been broadened to include supervision of the food and sanitation of the various public facilities in the Park, and schooling in sanitation and animal handling for candidates for positions of keeper. The title of the Veterinarian has been changed to Curator of Health.

#### RESEARCH

The preceding paragraphs have dealt with the health of the collections, and have indicated the study and research constantly under way. A research assistant has been added to the Zoo's hospital, and the Presi-

dent has mentioned in his report the hope of establishing a research center there for the study of animal diseases in their relations to human diseases.

The importance of the behind-the-scene staff work at the two institutions is best illustrated by the contacts which have been established with other research laboratories, both public and private, hospitals and other health services, universities and individual technicians working on allied problems. For example, the interchange of information and specimens has reached out to 109 points of contact in 29 states of the Union and 20 foreign countries. Staff members maintained contact with scientific societies and attended 7 meetings.

Of economic importance has been the study of infection in schools of fish harboring diseases to which man is susceptible, carried on at the request of the Federal Department of Commerce, as well as routine inspection of random tins of canned salmon so as to safeguard the health of the soldiers for whom they were purchased by the U. S. Army. When the program of Caribbean expansion was first advocated, both Army and Navy authorities turned to Dr. Ditmars for advice on the control of poisonous serpents and on remedial measures to be taken in cases of snake bite.

The old Aquarium in Battery Park, with improved laboratory facilities, is a nerve center for the study of various problems of research. Here have come twenty-four visiting students and Fellows from local and distant universities, whose research has ranged from dental development in fishes to the microchemistry of electric eel tissue. Our own staff have worked on pathology, genetics, studies of the eye condition of the blind cave fish of Mexico, laboratory study on the Tarpon life history based on field work at the Palmetto Key station in Florida, continued studies on the weird power of the electric eel, and on the colorless yet vitally practical study of the Teredo to benefit our City Department of Docks.

During the past five years, the Aquarium staff and their associates have identified and made studies of the cause and effect of five of the twelve types of cancer that have been positively demonstrated as being those to which man is susceptible. Added to this work which may some day fit into a complex pattern of cure or prevention, are studies on genetics of cancer in fishes made by Dr. Gordon, a Guggenheim Fellow, who has, at the Aquarium, developed cancer, apparently identical to the human disease, in Swordtail-Platy hybrids.

At the Aquarium a group composed of Drs. Smith and Cox of New

York University, and Nicholas and Smith of Yale, have been formed into an advisory Committee to determine the future course of research studies.

#### **PUBLICATIONS**

The work of the Aquarium staff in exploring the cave of the Blind Fish in Mexico and the continued Tarpon studies in Florida have been adequately described in past issues of the Bulletin. In addition, the staff, either alone or jointly, were responsible for the publication of sixteen scientific papers appearing in Zoologica, Copeia and other technical publications. The staff at the Zoo and members of the Department of Tropical Research, contributed fourteen papers to Zoologica, and two to other scientific journals, and together with their Aquarium colleagues, eleven major articles to the Bulletin. Our important publication in the field of zoological research, Zoologica, had the largest volume in the 34 years of its existence. Thirty-four scientific papers totalling 562 pages were published. Zoologica has a world-wide distribution, presently being sent to institutions or individuals in fifty-five foreign countries.

The bi-monthly *Bulletin*, fresh in outlook and cheerful in format, continues to improve. The average issue now contains thirty-two pages, packed full of interesting reading, and including eight-page inserts illustrating the work of artists who have held exhibitions in the Zoo.

The Society's magnificent collection of animal photographs gained further recognition during the year and 100 prints were exhibited at the Milwaukee Art Institute, 25 attracted attention to the new developments at the Zoo at the Cleveland convention of the American Institute of Park Executives, and 25 were shown at an exhibit of nature photography in Albany.

#### **EDUCATION**

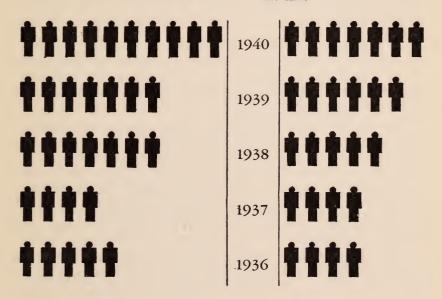
With the finest zoological collection in the world and the splendid Aquarium collection to offer, we look forward to broadening the base of their usefulness not only to children of City schools, but to pupils of all the schools serving the regional population of twelve and one-half million people, who live in 408 self-governing communities within 50 miles.

In 1941 there will be docent service, of which it is hoped hundreds of groups will avail themselves. For the payment of a fee, they will be offered an exciting educational tour, a wholesome luncheon and lots of

#### **EDUCATIONAL ACTIVITIES**

Each symbol at left represents 200 groups visiting the Zoo

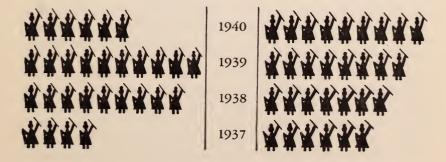
Each symbol at right represents 10,000 persons visiting the Zoo in group attendance



#### VISUAL AIDS

Each symbol at left represents 5,000 students who saw our lantern slides

Each symbol at right represents 10,000 students who saw our motion pictures



fun in the shape of animal rides, admission to the Children's Zoo and the like.

More and more schools are borrowing lantern slides and motion pictures. 125,000 children saw these in 1940. New films and slides are being added constantly so that the educational technique keeps pace with the times.

#### ART

To round out the cultural, recreational, educational and scientific appeal of the Zoo, an Art program had its inception in 1940. The south hall of the Museum of Heads and Horns was used for display of portravals of animals in various media.

Starting with an exhibition of 800 enlarged photographs which had been submitted in an amateur contest, among them some excellent studies which have been used in the new series of Zoo post cards, continuing with fortnightly shows of the young artists, Stolper and Addison, and ending the year with two exhibitions of remarkable water color plates of British Guiana fauna from Dr. Beebe's files in the Department of Tropical Research, the Museum attracted more than 25,000 visitors in less than three months.

Plans are being drawn for the alteration of the Museum into an exhibit hall, combining the finest and most interesting mounted specimens with the Society's excellent collection of oil paintings, formerly housed in the Art Gallery atop the Administration Building. Provisions will be made in the plans for a gallery in which changing exhibits will be displayed. Event will follow event in 1941. On page 32 is shown the calendar which has been arranged for the year.

#### **METAMORPHOSIS**

In a year of changes, the most outstanding feature was the completion, in December, of the first two units of the African Continental Group. This development, which was provided through the generosity of a member of the Society who modestly remains anonymous, comprises five acres containing a large open plains area for antelopes, zebras and African birds. In the same scene, separated from these plains animals and from the public by cunningly hidden moats, are the lions. Five young ones were turned out in their new habitat on Christmas Day. Public response was immediate and beyond all expectations. The attendance curve has risen sharply over that of previous years from the day

the lions were placed on exhibition. One lion has been stubbornly persistent in exploring the moats, but has suffered no ill effects, as escape ramps are provided.

Reports of other improvements to the buildings and grounds of the Zoo and to the Aquarium would not be complete without comment on the ability of the mechanical and laboring forces of the two institutions. Using available personnel, it has been possible to effect improvements which, if they had been performed by contract, would have cost more than \$50,000. This work was done in addition to the regular routine of repairs.

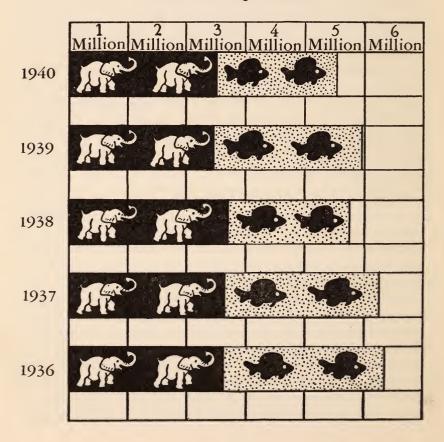
Highlighted among this group of improvements are the painting of the Eagle and Vulture Aviaries; the rehabilitation of the Aquatic Bird House; construction of a track for elephants and other riding animals, together with a shelter for the sale of tickets; the painting and repair of the interior of the Lion House, following the satisfactory completion of a City contract for roof and skylight renovation; the preparation and landscaping of a habitat group for Flamingoes; the erection of novel vending booths, in the shape of stylized animals, for the sale of souvenirs; the erection of a dozen bulletin boards at various strategic locations; the erection of a stage for the exhibition of small animals for the edification of younger visitors; and a general program of landscaping and forestry with a view toward bringing back the scenic pictures in the minds of the original planners. Along with these more notable accomplishments, a complete program of rehabilitation has had its inception and will continue through 1941.

Harking back again to the original purpose of the Society as expressed in its Charter, in which we were charged with "the power to establish, maintain and control the collections for the promotion of Zoology and kindred subjects, and for the instruction and recreation of the people," new standards to improve public relationship have been adopted. The keeper and ground staffs are being especially drilled in courtesy, while charged with maintaining order and cleanliness. To reward keepers for meritorious services, cash prizes were authorized. They went to Keepers Scott and Rimmer of the Zoo, and Tankman Bloom of the Aquarium. Children have been delighted by the institution of rides on elephants, camels and llamas. Older people, as well as children, are interested and amused by the weekly animal parades, at which time they may pet and fondle tamer specimens out for an airing with their keepers. The inherent desire to feed animals can now be gratified by purchasing, from

automatic vending machines, food pellets for the quadrupeds and grain for the birds. Young and old alike can, for a nickel, toss a butterfish to the ever-voracious sea lions. New and improved labels have appeared on cages, while directional signs at every important path intersection point out to the visitor the location of sights which he ought to see. Older people, too easily fatigued by walking the entire circuit, can now ride in a tractor train of the kind made popular at the New York World's Fair. In short, everything possible is being done to insure the happiness and comfort of the visitor.

The Society operates all of the revenue-producing facilities in the

TOTAL ANNUAL ATTENDANCE AT THE ZOOLOGICAL PARK AND AQUARIUM

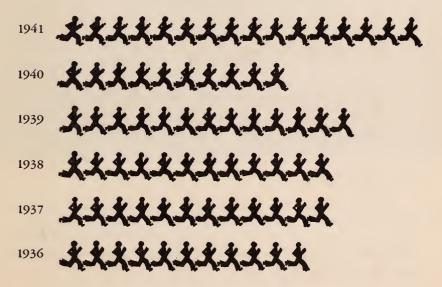


Zoo and Aquarium. Profits from these operations are earmarked for the purchase of animals. In both institutions, after careful study, new souvenirs were introduced and the public response has been gratifying. At the Zoo, food merchandising methods have been improved, menus diversified and quality bettered. The Rocking Stone restaurant, too ancient a structure to be continued with economical operation, has been closed.

Believing that proper operation and adequate service require constant improvement in the plant, the 1940 profits have been plowed back into improvement and extension of the revenue-producing facilities.

# ZOO ATTENDANCE FIRST FOUR MONTHS OF EACH OF PAST SIX YEARS

Each symbol represents 50,000 persons

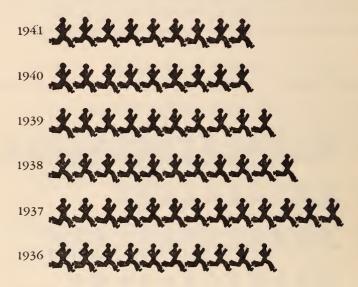


It has been the experience of Museums and similar institutions in New York that the effect of the World's Fair on attendance did not have the results which had been predicted. Comparative figures, which include the years 1939 and 1940, do not present a normal pattern. It is gratifying, however, that the Zoo, in which the bulk of improvements have been effected, is showing a constantly increasing attendance curve.

At the Aquarium, the lower attendance figures for 1940 clearly indicate that the exhibits must be revitalized, which is difficult because of the uncertainty of the Society's tenure of the old building in Battery Park.

# AQUARIUM ATTENDANCE FIRST FOUR MONTHS OF EACH OF PAST SIX YEARS

Each symbol represents 50,000 persons



#### CONCLUSION

While this report has been impersonally presented, digression must be made at this point gratefully to acknowledge the whole-hearted cooperation of the entire staff of both institutions, without whose enthusiasm and unity of purpose there could have been nothing like the improvement that has been chronicled.



SIAMESE FIGHTING FISH



Fun at the Zoo—the Animal Riding Track

# REPORT DEPARTMENT OF TROPICAL RESEARCH—1940

### GENERAL ACTIVITIES

THE general scientific activities of the Department were divided between work upon collected material at the laboratory in the Zoological Park, collaboration with other scientists and institutions, and the Fortieth Expedition of nine weeks at the Society's field station in Bermuda.

In April there was constructed a half-size model of four episodes in the migration of the sandpiper known as the Turnstone. It was exhibited at the May Day party, and will eventually be displayed in the Aquatic Bird House.

### **PUBLICATIONS**

The Department has contributed nine articles to Zoologica, all directly concerned with the expeditions of the Department, and representing contributions from workers at six institutions in addition to our own.

In more popular literature, the Department has been represented in every one of the 1940 Bulletins of the Zoological Society.

### SCIENTIFIC RELATIONSHIP

Dr. Beebe and Miss Crane were delegates in May to the Eighth American Scientific Congress in Washington. Two motion picture films were shown in the Zoological Section, the "Development of a Deep-sea Eel," and the "Evolution of a Lizard into a Bird." The interest of representatives of eight South American countries were enlisted in the Society. On September 1 Mr. Tee-Van attended the meeting of the Ichthyologists and Herpetologists at Toronto.

Our relationship with outside institutions and research workers has steadily continued.

### SPECIFIC LABORATORY WORK OF THE STAFF

Mr. Henry Fleming joined as Volunteer Assistant in Entomology. He has engaged in overhauling the preserved collections, and in rearranging and cataloguing the collection of Lepidoptera made on early expeditions of the Department in the jungles of British Guiana.

Mrs. VanderPyl is now a permanent member of the staff. She is continuing her elaborate card catalogue of deep-sea fishes, with detailed references to the literature, distribution, ecology and development. Her special problem is the identification of the Pacific lanternfishes, collected by the Department on the "Noma," "Arcturus" and "Zaca"; the work will be incorporated in an ecological monograph written in collaboration with the Director.

Gloria Hollister in 1940 published a fourth paper on the caudal skeleton of Bermuda shore-fish, and has another almost ready, dealing with the carangids. New specimens were prepared as needed. Early in the year Miss Hollister obtained a grant for eight months' scientific work in Iceland, but the project was given up on account of the war.

Jocelyn Crane published a paper in Zoologica on the development of crabs of the genus Ocypode, and has two other studies nearly complete, one on "Zaca" littoral crabs, including ten new species, and the other on the development of Bermuda crabs. In addition, she has brought the crab catalogue up to date and has done most of the sorting and bottling of specimens sent to other institutions for study, besides whipping the resultant papers into shape for Zoologica. She has been in communication with fifteen institutions, foreign and American, in connection with her work.

John Tee-Van continued work on the "Zaca" and other Pacific sharks, and also kept the elaborate card files of fish literature up to date. As Editor-in-Chief of the future publication, "Fishes of the Western North Atlantic," he is meeting the challenge which a work of this magnitude always presents, involving the organization of subject matter and active collaboration with many institutions, governmental agencies and authors.

Mr. Tee-Van was in charge of the Society's World's Fair Exhibit. He is also contributing materially to a number of new developments which have taken place in the Zoological Park.

Eight separate scientific problems have been brought near to completion by the Director, the most immediate being the systematic review of the rays of the "Arcturus" and "Zaca."

In addition, papers on Pacific pediculates and other groups of abyssal fishes taken on the "Arcturus" and "Zaca" Expeditions, on the anatomy of the smallest Pacific sailfish, and on the larval development of certain Bermuda shore fishes are well advanced. Lectures covering the work of the department were delivered at the United States Naval and Military Academies at Annapolis and West Point, and before a dozen other institutions.

### THE FORTIETH EXPEDITION

The personnel consisted of William Beebe, Jocelyn Crane, and Mr. and Mrs. Greame-Kelley. In Bermuda, Bronson Hartley was added to the staff as Field Assistant.

Nine weeks were spent at the station in the late summer. As always, our relationships with the Bermuda Government were most cordial. The new Governor Sir Denis Bernard was as interested in our researches as were his five predecessors.

Conditions were favorable and there was an abundance of marine life. The submarine light was used constantly at night around the wharf and a wealth of fish and other sea creatures lured by the strange radiance were observed, studied and captured.

Very appreciable progress was made in the study of the development and growth of larval fish, and especially in the pattern and color change at night as compared with those of day. Sargassum fish provided more data with reference to feeding, growth and individual pigment alteration. Very young specimens of the Bermudan angelfish were captured for the first time.

Studies of the life histories of Bermuda crabs were continued most successfully by Miss Crane; eggs and larval stages having been secured from a number of species. Most noteworthy among these were the prezoea and first zoea of the mangrove crab (Goniopsis cruentata), hitherto undescribed, and of the giant land scrab (Cardisoma guanhumi), previously incompletely described twenty-eight years ago. These studies are connected with similar ones made on the "Zaca" in the Pacific.

Thanks to the purchase of complete new photographic outfit, extensive experiments were conducted in color photography. Its application to the scientific recording of color phases and changes in fish and marine invertebrates were studied, both motion pictures and slides being made. We proved that without the slightest question, Kodachrome in its present stage of development is so excellently adapted to the accurate

recording of color in even microscopic animals that, in the future, field sketches will be largely replaced by photographs, with an attendant increase in speed and accuracy as well as a reduction in expense. Especially valuable were the color photographs of larval and adolescent fishes, some measuring less than a half-inch in length, showing every evanescent pigment spot. Methods were also worked out for the successful recording of diurnal, nocturnal and emotional color patterns.

Mr. Greame-Kelley made an excellent collection of Bermuda insects, specializing in Coleoptera. He also worked as artist, whenever sketches or drawings were needed in our scientific investigations. Mr. Hartley proved to be one of the most successful collectors of rare fish and crabs we have ever had. He also proved invaluable in the devising and construction of delicate photographic and aquarium apparatus.

An offer which I made in the Bermuda paper, the Royal Gazette, to send free copies of my last list of Bermuda birds, brought forth an unexpected response from bird lovers on all parts of the colony.

#### L'ENVOI

On the last day of the year 1940 the fate of New Nonsuch still hangs in the balance; together with all the surrounding water and land, it and the Biological Station have been marked for demolition to provide a runway for Army land planes.

No plans can be made, and no more can be said until this is settled; whether or not the labor and love which have gone into the initiation and building up of this Laboratory of the Department of Tropical Research throughout the past ten years must be given over to the necessities of war.

#### **PUBLICATIONS**

The published contributions of the Department up to the end of the year 1940, number 22, bringing the total to 611.

#### CONTRIBUTIONS-1940

590—A review of the American Fishes of the Family Cirrhitidae. John Tee-Van. Zoologica, Vol. XXV, No. 5, pp. 53-64.

591—On the Post-embryonic Development of Brachyuran Crabs of the Genus Ocypode. Jocelyn Crane. Zoologica, Vol. XXV, No. 6, pp. 65-82.

592—New Species of British Guiana Heterocera. W. Schaus. Zoologica, Vol. XXV, No. 7, pp. 83-88.



Frogfish—Cousin of the Abyssal Sea Devils



GRACE AND BEAUTY—A BERMUDA SNAIL

- 593—Caudal Skeleton of Bermuda Shallow Water Fishes. IV. Order Cyprinodontes: Cyprinodontidae, Poecillidae. Gloria Hollister. Zoologica, Vol. XXV, No. 9
- 594—Ostriches and Men. William Beebe. Bull. N. Y. Zool. Soc., Vol. XLIII, No. 1, pp. 21-27.
- 595—Sea Dragon Nursery. Jocelyn Crane. Nature Magazine, Vol. XXXIII, No. 3, pp. 137-140.
- 596—Wolverines and Men. William Beebe. Bull. N. Y. Zool. Soc., Vol. XLIII, No. 2, pp. 54-59.
- 597—The Bathypelagic Caridean Crustacea. Fenner A. Chace, Jr. Zoologica, Vol. XXV, No. 11, pp. 117-209.
- 598—Actiniaria from the Gulf of California. Oskar Carlgren. Zoologica, Vol. XXV, No. 12, pp. 211-219.
- 599—Our Building at the World's Fair in 1940. John Tee-Van. Bull. N. Y. Zool. Soc., Vol. XLIII, No. 3, pp. 70-71.
- 600—Camels and Men. William Beebe. Bull. N. Y. Zool. Soc., Vol. XLIII, No. 4, pp. 117-126.
- 601—Medusae of the Templeton Crocker and Eastern Pacific Zaca Expedition, 1936-1938. Henry B. Bigelow. Zoologica, Vol. XXV, No. 19, pp. 281-321.
- 602—Notes on Echinoderms from the West Coast of Central America. Hubert Lyman Clark. Zoologica, Vol. XXV, No. 22, pp. 331-352.
- 603—A New Grouse Locust of the Genus Miriatra from British Guiana. James A. G. Rehn. Notulae Naturae, Acad. Nat. Sci. Phila., No. 25, pp. 1-6.
- 604—The Blattidae of French Guiana. Morgan Hebard. Proc. Acad. Nat. Sci. Phila., Vol. LXXVIII, pp. 135-244.
- 605-Blattidae in Amazonas. Arkiv fur Zoologi, Band 24a, No. 11, pp. 47-71.
- 606—\$12,500 Fares for Crabs. William Beebe. Bull. N. Y. Zool. Soc., Vol. XLIII, No. 5, pp. 167-168.
- 607—Mollusks from the West Coast of Mexico and Central America. Part I. L. G. Hertlein and A. M. Strong. Zoologica, Vol. XXV, No. 4, pp. 369-430.
- 608—Horses and Men. William Beebe. Bull. N. Y. Zool. Soc., Vol. XLIII, No. 6, pp. 181-188.
- 609—Fortieth Expedition of the New York Zoological Society. Walter Siefert. Royal Gazette, Bermuda, August 27, 1940.
- 610—The Mammals of the Guiana Region, G. H. H. Tate. Bull. Amer. Mus. Nat. Hist., Vol. 76, Art. 5, pp. 151-229.
- 611—Annual Report of the Director, Department of Tropical Research, Ann. Rept. N. Y. Zool. Soc., 1939, pp. 77-86.

### SPECIAL EVENTS OF 1941

## At the Zoological Park

- May 31 to June 26. The Animal Hospital: How animals are cared for.
- June 3 to July 31. Wild and domestic types of cattle of the world.

  In cooperation with Sheffield Farms and Sealtest, Inc.
- June 28 to July 17. The American Eagle.
- July 20 to August 17. Animal sculpture, lent by the Metropolitan Museum.
- August 18 to August 30. Paintings of birds, by Lloyd Sanford.
- August 31 to September 18. Exhibition of prize-winning photographs and selected entries in the Society's second annual amateur photographers' contest.
- September 21 to October 9. Exhibition of drawings of animals, by Charles Leidl.
- October 12 to October 23. Animal postage stamps.
- November 9 to November 20. Exhibition of prize-winning photographs entered in first annual newspaper photographers' contest.
- December 7 to December 18. Speed records of animals.
- December 21 to January 1. Exhibition of animal drawings by children in public and private schools.

STATEMENT OF FUNDS PROVIDED BY THE VARIOUS CITY ADMINISTRATIONS FOR THE DEVELOPMENT AND MAINTENANCE OF THE ZOOLOGICAL PARK AND AQUARIUM FROM THE ORGANIZATION OF THE SOCIETY TO THE PRESENT—1896 TO 1941.

		1896 10	1/71.			
MAYOR	COMPTROLLER	Year	MAINTI	ENANCE	CORPORATE	STOCK ISSUES
MAIOR	COMPTROLLER	T Cal	Park	Aquarium	Park	Aquarium
Robert A. Van Wyck 1898–1901	Bird S. Coler 1898–1901	1899 1900 1901 1902	\$ 30,000.00 40,000.00 65,000.00 85,000.00	\$ 5,959.97	\$ 125,000.00 300,000.00 250,000.00	
Seth Low 1902-1903	· E. M. Grout 1902–1903	1903 1904	104,965.00 104,965.00	46,453.68 46,439.72	250,000.00 275,000.00	\$ 30,000.00 40,000.00
G. B. McClellan 1904–1909	E. M. Grout 1904–1906 Herman A. Metz 1907–1909	1905 1906 1907 1908 1909	134,965.00 144,965.00 141,558.75 154,627.00 162,325.00 167,632.00	44,968.50 44,987.71 44,183.87 44,157.27 45,971.44 45,974.86	275,000.00 250,000.00 100,000.00 65,000.00 10,000.00 89,500.00	
W. J. Gaynor 1910–1913 Ardolph L. Kline 1913	W. A. Prendergast 1910–1913	1911 1912 1913 1914	174,632.00 182,365.00 191,925.00 200,000.00	47,560.21 46,597.08 47,335.62 46,995.53	155,000.00	29,100.00
J. P. Mitchell 1914–1917	W. A. Prendergast 1914–1917	1915 1916 1917 1918	200,000.00 197,074.35 199,560.00 207,586.00	46,991.66 46,996.43 46,903.61 48,630.71	21,425.00	•••••
J. F. Hylan 1918 to 1925	C. L. Craig 1918 to 1925	1919 1920 1921 1922 1923 1924 1925 1926	190,000.00 250,098.27 276,951.01 264,618.05 264,515.00 264,514.49 264,514.49 274,280.00	45,000.00 53,971.48 65,203.12 63,341.26 59,226.00 58,309.00 58,334.00 62,348.00	5,000.00	7,970.00 33,000.00 1,500.00
James J. Walker 1926 to 1932 John P. O'Brien 1933	Charles W. Berry 1926 to 1933	1927 1928 1929 1930 1931 1932 1933 1934	277,280.00 319,380.50 338,359.00 350,170.92 349,459.00 342,759.00 271,213.00 260,377.88	65,228.00 88,111.00 71,232.00 81,354.79 76,167.00 76,132.00 69,528.00 *67,459.81	†35,000.00 50,000.00	65,000.00
Fiorello H. LaGuardia 1934	W. Arthur Cunningham 1934 Joseph D. McGoldrick 1934 Frank J. Taylor 1935 to 1937 Joseph D. McGoldrick 1938	1935 1936 1937 1938 1939 (6 Mos.) 1939–1940 1940–1941	*266,983.92 *266,533.92 *268,811.43 *285,722.38 141,562.10 282,897.50 283,880.00 \$9,244,026.96	*68,212.34  *68,812.00 *74,552.00 *77,402.00 38,701.00 77,057.00 78,282.00  \$2,291,071.67	\$2,322,925.00	\$317,570.00

Note: The appropriations for each year are granted by the Board of Estimate the previous year.

\* As modified. † Appropriated for New Public Comfort Station but later rescinded.



# SUMMARY OF EXPENDITURES, 1896 TO 1940, NEW YORK ZOOLOGICAL SOCIETY AND THE CITY OF NEW YORK, ON ACCOUNT OF THE DEVELOPMENT AND MAINTENANCE OF THE ZOOLOGICAL PARK AND THE AQUARIUM, INCLUDING THE PURCHASE OF COLLECTIONS AND ALSO FOR THE SCIENTIFIC AND GENERAL PURPOSES OF THIS SOCIETY.

	EXPENDED	BY THE CITY OF	NEW YORK	FROM GAT	E RECEIPTS	EXPENDED BY THE NEW YORK ZOOLOGICAL SOCIETY									
Year	Zoological Park Maintenance	Aquarium Maintenance	Bond Issues a/c—Park and Aquarium	Construction and Repairs	Purchase or Animals	Zoological Park Development	Aquarium Improvements	Zoological Park Maintenance	Aquarium Maintenance	Purchase of Animals	Aquarium Specimens	Heads and Horns Collection	Pension Fund Contribution	Library and Paintings	Scientific and General Purposes
1896 1897 1898 1899 1900	\$ 30,000.00 40,000.00		\$125,000.00		\$ 2,470.88	\$ 4,213.63 6,424.61 23,597.80 145,495.80 34,626.24		\$ 1,292.16 7,038.61 6,189.33		\$ 8,540.72 3,784.32				\$ 102.76 88.13	\$ 2,903.74 4,339.20 3,476.02 5,601.78
1901 1902 1903 1904 1905	65,000.00 85,000.00 104,965.00 104,965.00 134,965.00	\$ 5,959.97 46,453.68 46,439.72 44,968.50	300,000.00 250,000.00 280,000.00 315,000.00 275,000.00		2,998.80 4,256.50 5,912.95 5,421.90 6,849.00	18,348.61 5,908.69 1,038.20 1,013.87 144.00		3,714.37 2,757.57 1,894.37		11,652.24 20,983.07 20,361.62 14,299.61 20,643.40				462.20 224.73 456.03 887.16 418.10	7,597.16 11,068.69 13,608.10 15,072.84 18,773.90
1906 1907 1908 1909 1910	144,965.00 141,558.75 154,627.00 162,325.00 167,632.00	44,987.71 44,183.87 44,157.27 45,971.44 45,974.86	250,000.00 100,000.00 65,000.00 10,000.00 89,500.00		8,132.35 8,248.65 9,446.40 9,992.75 9,909.90	778.48 370.72 232.27 2,860.92 5,918.35				14,907.36 10,606.03 4,231.61 9,734.43 4,339.25	\$ 973.90	\$ 892.71 735.77 7,340.82 2,036.39	<u></u>	319.16 644.05 1,313.87 609.56 1,021.87	17,961.67 15,999.68 14,693.92 17,168.95 20,627.77
1911 1912 1913 1914 1915	174,632.00 182,365.00 191,925.00 200,000.00 200,000.00	47,560.21 46,597.08 47,335.62 46,995.53 46,991.66	29,100.00	\$ 9,237.81 9,175.86	11,611.15 11,838.40 12,404.25 3,831.15	1,155.00 40,00 218.45 2,175.13 887.88				6,659.89 22,750.18 10,665.57 22,590.44 13,629.41	1,191.80 1,350.03 1,850.25 1,792.99 1,466.64	1,615.38 556.94 486.00 338.73 1,024.91	\$3,333.33	1,221.26 1,031.55 732.97 3,541.15 4,181.24	23,409.39 32,109.01 32,543.88 28,246.42 31,398.08
1916 1917 1918 1919 1920	197,074.35 199,560.00 207,586.00 190,000.00 250,098.27	46,996.43 46,903.61 48,630.71 45,000.00 53,971.48	5,000.00	9,599.81 3,488.31 2,642.70 4,917.84 17,438.28	7,118.90	425.30 1,450.05 48.12 5,007.00	\$ 3,450.00 4,095.03	11,537.79 1,580.00 19,924.00 5,141.92	\$ 93.61 407.07	13,511.12 10,175.70 8,425.92 13,345.59 32,761.08	2,193.57 1,637.15 960.19 1,028.05 1,654.02	1,031.47 18.12 18.61 88.27 263.86	8,000.00 8,000.00 8,000.00 8,000.00 8,000.00	1,555.12 2,869.20 3,559.85 1,442.07 2,517.64	38,339.99 44,262.48 34,125.49 45,599.71 51,018.20
1921 1922 1923 1924 1925	276,951.01 264,618.05 262,724.50 262,471.01 262,808.69	65,203.12 63,341.26 57,166.63 57,319.20 58,324.89	86,000.00 25,000.00 	25,463.77 17,060.00 18,388.20 16,806.00 19,974.05		88,734.92 50,888.65 5,000.00	53,635.02 16,153.03 	6,068.17 10,074.88 19,019.09 28,956.34 38,793.01	976.47 3,326.28 3,319.44 8,097.14 4,380.45	27,442.59 43,047.41 24,456.20 11,560.62 20,843.01	2,165.05 3,057.91 1,432.89 2,013.88 2,609.55	2,661.67 7,191.93 1,550.69 942.34 667.78	8,000.00 8,000.00 8,000.00 8,000.00	4,698.24 1,765.78 3,391.96 1,938.77 1,174.24	55,684.15 58,797.69 58,404.21 76,559.41 242,753.89
1926 1927 1928 1929 1930	273,815.12 276,855.19 319,380.50 338,359.00 350,170.92	62,266.20 65,216.89 88,109.12 71,229.35 81,343.46	1,500.00	20,102.90 18,960.48 18,106.25 21,957.80 20,834.91		2,480.06 13,095.54 2,500.89	1,395.00 984.85 375.00	45,467.10 61,968.22 52,676.35 59,673.38 65,600.39	7,261.21 11,656.97 10,776.84 13,670.81 16,966.30	23,460.04 27,545.92 21,001.88 23,783.69 17,492.92	2,847.35 2,861.55 2,912.97 3,572.14 1,355.56	306.32 135.00 107.89 669.48 639.04	8,000.00 8,000.00 8,000.00 8,000.00 10,000.00	562.40 2,477.37 1,168.15 4,029.63 2,726.37	87,915.27 82,807.54 88,794.37 122,774.78 134,278.88
1931 1932 1933 1934 1935	349,344.95 337,490.01 268,633.38 257,423.08 265,630.94	76,408.08 76,071.24 67,814.24 65,806.61 68,203.46	5,422.63	14,890.58 16,710.25 13,961.02 11,025.88 11,596.51		5,131.68 1,852.40 1,037.19		65,601.03 61,127.48 62,996.66 66,502.59 60,237.94	19,541.40 19,155.01 18,120.73 18,229.23 18,832.57	24,439.56 20,039.28 7,644.14 9,267.86 16,530.28	3,650.58 1,934.84 2,199.91 1,641.06 2,031.56	1,707.40 335.00 118.65 162.86 275.21	10,000.00 10,000.00 10,000.00 10,000.00 10,000.00	6,713.26 3,607.97 3,384.38 606.53 383.07	128,871.12 97,303.32 86,757.06 81,711.26 82,929.14
1936 1937 1938 1939 1940	265,057.37 267,192.29 282,759.71 283,280.81 282,761.15	68,760.95 73,807.74 79,225.20 79,164.23 78,905.12		13,496.42 11,527.85 10,235.70 11,019.23 8,392.10		100.00		57,270.94 56,262.45 57,043.10 51,050.57 57,513.25	17,886.45 16,408.55 13,408.11 12,941.70 12,022.76	20,918.46 22,417.08 15,351.51 23,012.27 39,627.52	2,867.50 2,799.17 558.82 403.75 577.10	178.43 24.79 	10,000.00 19,047.09 20,455.95 20,475.95 20,069.17	470.18 1,415.39 431.41 345.30 533.85	79,835.73 92,609.40 93,543.59 92,576.90 98,501.09
Balances R	m on Bonds, less Reverting to the Ci Connection with 1		35,559.89	onograph of the D	heasants"—Cift of	Col. Anthony R.	Kuser								194,100.00
Expended in	Connection with	Galapagos Expediti	on—Gift of Harri	son Williams	measures - Gift of	Con Michony K.	rusei								98,670.00

\$14,008,214.91

Totals

\$497,454.44

\$120,443.93

\$535,544.32

\$108,321.38

\$1,044,973.06

\$377,010.51

\$ 738,480.80 \$5,879,218.13 \$59,591.73

\$34,297.46

\$273,381.49

\$247,479.10

\$71,023.92

\$2,766,124.87

# CLASSIFIED SUMMARY FOR THE YEAR 1940, NEW YORK ZOOLOGICAL SOCIETY

	PARK MAINTENANCE		AQUARIUM MAINTENANCE		N	NEW YORK ZOOLOGICAL SOCIETY FUNDS			CDANA	MOTAL	
		ity Funds		ty Funds	Special	Funds	General Income Fund		GRAND	GRAND TOTAL	
	Salaries	Other Items	Salaries	Other Items	Salaries	Other Items	Salaries	Other Items	Salaries	Other Items	
Zoological Park: Maintenance by City	\$215,362.27	\$67,398.88					*************		\$215,362.27	\$ 67,398.88	
GATE RECEIPTS Improvements and Repairs					\$8,392.10				8,392.10		
CONTRIBUTIONS BY SOCIETY  Maintenance Administration Purchase of Animals Special Projects Membership Expenses Educational Activities Conservation Activities Insurance Pension Contributions Miscellaneous Expenditures Scientific Purposes					1,450.70	\$ 39,627.52 104,368.87 	\$ 51,239.19 13,620.26 	\$ 6,274.06 6,838.57 	\$1,239.19 13,620.26 	6,274.06 6,838.57 39,627.52 104,368.87 3,270.51 705.98 3,548.81 2,860.42 26,135.11 10,859.81 12,101.13	
Aquarium: Maintenance by City			\$64,943.45	\$13,961.67			***************************************		64,943.45	13,961.67	
CONTRIBUTIONS BY SOCIETY  Maintenance Insurance Aquarium Specimens						577.10	11,922.76	100.00	11,922.76	100.00 1,031.05 577.10	
Miscellaneous Expenditures			***************************************		***************************************	3,687.31	****************	131.61	***************************************	131.61 3,687.31	
Totals	\$215,362.27	\$67,398.88	\$64,943.45	\$13,961.67	\$9,842.80	\$157,152.00	\$107,620.05	\$64,965.86	\$397,768.57	\$303,478.41	
Totals by Funds	\$282,	761.15	\$78,9	005.12	\$166,	994.80	\$172,	585.91	\$701,	246.98	

# TREASURER'S REPORTS

For the Year Ending December 31, 1940 CORNELIUS R. AGNEW, *Treasurer* 630 Fifth Avenue New York City

### BALANCE SHEET

December 31, 1940

(Prepared on a Cash Basis Except as to Items Affecting Appropriations Made by the City of New York)

ASSETS		
Cash: In Banks		\$ 75,615.21
On Hand		250.00
		75,865.21
Accounts Receivable:  Due from the City of New York on Account of:		
Park Maintenance Appropriation—Six Months to June 30, 1940	\$ 4,000.00	
Park Maintenance Appropriation—Six Months to December 31, 1940	39,456.20	
Aquarium Maintenance Appropriation—Six Months to December 31, 1940	10,387.88	53,844.08
Additional Appropriation Requested for the Period from January 1 to June 30, 1940—Approval Pending:		
Aquarium Maintenance		2,782.46
Values: Bonds (Approximate Market Value \$1,168,463.10)	1,447,755.08	
Preferred and Guaranteed Stocks (Approximate Market Value, \$823,383.75)	840,348.79	
Common Stocks (Approximate Market Value	1,462,504.22	
Miscellaneous	4,850.00	3,755,458.09
Investments set apart for use, benefit and purposes of the Pension Fund on January 1, 1937, Carried at then Market Values with Reinvestments at Cost		
(Approximate Market Value, December 31, 1940, \$199,523.75)		232,475.75
		\$4,120,425.59

Note: Animals and other living specimens, heads, horns, which have not been valued and other sundry property are not included in this Balance Sheet.

### LIABILITIES

Accounts Payable:		
Park Maintenance	\$	7,276.31
Aquarium Maintenance		1,284.36
		8,560.67
Fund Reserves:		
General and Other Invested Funds, Schedule 1 \$3,686	6,244.31	
	5,826.45	
William E. Damon Fund	0,593.08	
Endowment for Pension Fund	9,523.45	
Special Funds:		
Aquarium Research Account \$ 3,244.40		
Improvement and Repair Account 808.81		
Conservation Account		
New Equipment Account		
Special Projects Account 18,327.23		
	9,677.63	
	4	111.864.92
		,111.001.72
	\$4	,120,425.59

Schedule 1

## GENERAL AND OTHER INVESTED FUND RESERVES

GENERAL AND OTHER INVESTED FUND RES	EKVES
General Invested Fund Reserves:	
General Fund	\$ 637,128.84
Anna M. Harkness Fund	1,072,803.14
Rockefeller Fund	1,017,047.21
Sage Fund	665,357.87
George F. Baker Fund	110,002.90
Jacob H. Schiff Fund	107,451.61
Ladies' Auxiliary Fund	5,690.27
Daties Translary 2 and management an	7,070.27
Total General Invested Fund Reserves	3,615,481.84
Other Invested Fund Reserves:	
Cadwalader Animal Fund\$ 20,050.66	
Florence Lydig Sturgis Fund	
Stokes Bird Fund	
Grant Fund for the Protection of Wild Life 25,045.87	
Total Other Invested Fund Reserves	70,762.47
Total General and Other Invested Fund Reserves	\$3,686,244.31
Note: Sale or redemption of securities during the year resulted in a \$6,846.40 which has been allocated to the various funds.  MAINTENANCE FUND—ZOOLOGICAL PARK ACC	
Received from City of New York on Account of Park	

Received from City of New York on Account of Park Maintenance Appropriation: For the Period from January 1 to June 30, 1940 For the Period from July 1 to December 31, 1940		\$134,016.26 105,288.69
		239,304.95
Budget Appropriation—January 1 to June 30, 1940	\$139,904.14	
Collection by City on Account of Workmen's Compensation	318.53	
Insurance	718.77	
	140,222.67	
Less Reverting to the City of New York	2,206.41	
	138,016.26	
Budget Appropriation—Year to June 30, 1941	283,880.00	
Due from the City of New York on Account of Park Maintenance:		
For the Period from January 1 to June 30, 1940	4,000.00	
For the Period from July 1 to December 31, 1940	39,456.20	43,456.20
Deficit in City Maintenance Appropriation (Paid by the New York Zoological Society):		
For the Period from January 1 to June 30, 1940	27,705.85	
For the Period from July 1 to December 31, 1940	29,807.40	57,513.25
		340,274.40

# MAINTENANCE FUND—ZOOLOGICAL PARK ACCOUNT Continued

Expenditures (See Details Below):  For the Period from January 1 to June 30, 1940  For the Period from July 1 to December 31, 1940		165,722.11 174,552.29
		340,274.40
Expenditures—July 1 to December 31, 1940	174,552.29	
New York Zoological Society): For the Period from July 1 to December 31, 1940	29,807.40	
Balance of City Appropriation Available for Expenditure for	144,744.89	
Period from January 1 to June 30, 1941	139,135.11	
Budget Appropriation—Year to June 30, 1941	\$283,880.00	
	Jan. 1 to Jun. 30,	Jul. 1 to Dec. 31,
Expenditures:	1940	1940
Salaries	\$107,201.36	\$108,160.91
Salaries and Wages in Excess of City Appropriations	22,814.90	28,424.29
Forage and Veterinary Supplies	15,067.00	16,468.06
Fuel Supplies	9,181.17	6,553.82
Office Supplies	441.23	900.30
Medical and Surgical Supplies	73.18	277.43
Cleaning and Disinfectant Supplies	174.07	241.57
Motor Vehicle Supplies	258.06	304.34
General Plant Supplies	777.69	1,687.75
Uniforms and Wearing Apparel	56.84	173.38
Office Equipment	52.63	46.59
Motor Vehicle Equipment	119.45	95.27
General Plant Equipment	1,776.88	1,354.93
Motor Vehicle Materials	96.49	29.18
General Plant Materials	4,114.84	5,867.66
General Repairs and Replacements	2,022.28	2,494.58
Electric Service	34.13 18.76	54.28 12.89
Telephone Service	933.02	1,223.07
Contingencies	508.13	181.99
Total Expenditures	165,722.11	174,552.29
Total Expenditures for Year 1940	\$340,2	274.40

# MAINTENANCE FUND—AQUARIUM ACCOUNT

Received from City of New York on Account of Aquarium Maintenance Appropriation:  For the Period from January 1 to June 30, 1940  For the Period from July 1 to December 31, 1940		\$ 37,032.55 28,702.23
Budget Appropriation—January 1 to June 30, 1940 Less Reverting to the City of New York	\$ 37,067.65 35.10	65,734.78
	37,032.55	
Budget Appropriation-Year to June 30, 1941	78,282.00	
Due from the City of New York on account of Aquarium Maintenance:  For the Period from January 1 to June 30, 1940		
For the Period from July 1 to December 31, 1940	10,387.88	10,387.88
Additional Appropriation Requested for the Period from January 1 to June 30, 1940—Approval Pending		2,782.46
New York Zoological Society):  For the Period from January 1 to June 30, 1940  For the Period from July 1 to December 31, 1940	6,402.36 5,620.40	
		12,022.76
		90,927.88
Expenditures (See Details on Following Page):  For the Period from January 1 to June 30, 1940  For the Period from July 1 to December 31, 1940		46,217.37 44,710.51
		90,927.88
Expenditures—July 1 to December 31, 1940	44,710.51	
For the Period from July 1 to December 31, 1940	5,620.40	
Polones of City Agreements and Assistable for Formalisms for	39,090.11	
Balance of City Appropriation Available for Expenditure for Period from January 1 to June 30, 1941	39,191.89	
Budget Appropriation-Year to June 30, 1941	\$ 78,282.00	

# MAINTENANCE FUND-AQUARIUM ACCOUNT, Continued

	Jan. 1 to	Jul. 1 to
	Jun. 30,	Dec. 31,
	1940	1940
Expenditures:		
Salaries and Wages	\$ 32,362.40	\$ 32,581.05
Salaries and Wages in Excess of City Appropriations	6,402.36	5,520.40
Forage and Veterinary Supplies	1,905.35	1,709.60
Fuel Supplies	2,567.53	1,112.41
Office Supplies	96.65	138.76
Laundry, Cleaning and Disinfectant Supplies	189.81	90.39
Refrigerating Supplies	98.11	95.40
General Plant Supplies	350.20	306.49
Wearing Apparel	28.81	36.00
Office Equipment	60.21	97.13
General Plant Equipment	756.60	628.60
General Plant Materials	228.55	987.31
Repairs and Replacements	707.03	1,084.34
Telephone Service	200.88	162.45
Expressage and Cartage	201.90	137.19
Contingencies	60.98	22.99
Total Expenditures	46,217.37	44,710.51
Total Expenditures for Year 1940	\$ 90,5	927.88

### GENERAL FUND

Balance December 31, 1939	\$551,358.66
Estate of Helen C. Inslee	4,846.94
Life Memberships	750.00
Net Profit on Sale or Redemption of Securities	1,213.20
Transfer from Biological Laboratory Construction	42,610.02
Transfer from Studio and Auditorium	26,252.23
Transfer from General Income Account	10,097.79
Balance December 31, 1940	\$637,128.84

# New York Zoological Society

# GENERAL INCOME ACCOUNT

Receipts:		
Income from Investments—General Invested Funds		\$161,376.59
Income from Endowment for Pensions		9,940.00
Annual Dues		6,010.64
Donations:		
American Museum of Natural History	\$ 400.00	
W. Redmond Cross	542.75	
Junior Auxiliary	870.54	1,813.29
Sale of Annual Reports		10.45
Transfers:		
Art Gallery Account	4,637.56	
Library Account	903.78	
Heads and Horns Collection Account	2,585.48	
Publication Account	3,587.06	
Revolving Publication Account	2,005.77	13,719.65
		192,870.62
Expenditures:		
General Office Expenses		3,716.70
Stationery, Printing and Office Supplies		1,399.42
Salaries of Officers		8,131.88
Salary of Bursar		1,200.00
Bank's Fee as Assistant Treasurer and Custodian		2,500.00
Audit of Accounts		2,000.00
Annual Report		3,510.83
Annual Meeting		2,104.01
Reception Expense		1,166.50
Legal Fees		2,165.77
Educational Activities		5,175.31
Insurance—Zoological Park	2,860.42	, i
Insurance—Aquarium	1,031.05	3,891.47
Aquarium Expenses		131.61
Publication Expense		131.01
Bulletin	8,625.67	
Zoologica	6,229.34	
"Serpents of Northeastern States"	62.15	
Photographs and Slides	4,606.84	19,524.00
Park Hospital Laboratory Expense		2,540.80
Tropical Research Expenditure	16,152.76	2,740.00
Less Contributed by Dr. William Beebe	1,452.76	14,700.00
Less Contributed by D1. william beese		14,700.00
Pension Fund—3½% on Earmarked Fund	8,400.00	
Pension Fund—4% on Salaries of Members	11,669.17	
Pension Fund Administration	383.00	
Auxiliary Pensions	6,065.94	
Aid to Employees and Hospitals	500.00	27,018.11
Miscellaneous Expenses		2,173.49
·		102 040 00
		103,049.90

# Forty-Fifth Annual Report

# GENERAL INCOME ACCOUNT, Continued

Zoological Park Maintenance Supplies	51,239.19 6,274.06 11,922.76 100.00 1,936.92 8,250.00	79,722.93
Balance Transferred to General Fund		182,772.83 10,097.79
Datalet Transferred to General Tund		
		\$192,870.62
CADWALADER ANIMAL FUNI	)	
Funds, December 31, 1939:		
Investments at Cost	26,173.20 1,115.39	\$ 27,288.59
Profit on Sale of Securities		50.66
		27,339.25
EXPENDITURES		
Animal Account (Transfer) Funds, December 31, 1940: Investments at Cost		7,288.59
		27,339.25
WILLIAM E. DAMON FUND		
Funds December 31, 1939:		
Investments at Cost		\$ 10,336.00 444.18
P'		10,780.18
Receipts: Income from Investments		390.00
		11,170.18
Expenditures—Aquarium Specimens Funds December 31, 1940:		577.10
Y .	0,336.00 257.08	10,593.08
_		\$ 11,170.18

Funds December 31, 1939:

Funds December 31, 1940:

## New York Zoological Society

### PERMANENT WILD LIFE PROTECTION FUND

Investments at Cost Uninvested Balance	\$125,420.70 405.75
	\$125,826.45
Funds December 31, 1940: Investments at Cost Uninvested Balance	125,488.70 337.75
	\$125,826.45
ENDOWMENT FOR PENSION FUND	
Funds December 31, 1939: Investments—Market Value at Date of Transfer and	
Reinvestments at Cost	\$239,410.25 298.20

Loss on Sale of Securities

Uninvested Balance

Investments—Market Value at Date of Transfer and Reinvestments at Cost

239,708.45

239,523.45

\$232,475.75

7,047.70

185.00

# Forty-Fifth Annual Report

# ANIMAL ACCOUNT

Balance Transferred from General and Other Invested Funds as of January 1, 1940		\$ 37,174.73
Transfer of Accumulated Income from Investments of Cadwalader Animal Fund		7,288.59
		44,463.32
Receipts:  J. Watson Webb Income from Investments Income from Cadwalader Animal Fund Sale of Animals Miscellaneous	\$ 250.00 1,120.08 1,378.48 1,899.00 61.38	4,708.94
		49,172.26
Expenditures:  Purchase of:  Mammals  Birds  Reptiles  Insects  Express and Other Charges  Traveling and Other Expenses  Unexpended Balance December 31, 1940	2,282.15 336.64	27,999.86 4,534.78 4,468.34 5.75 37,008.73 2,618.79 39,627.52 9,544.74 \$ 49,172.26
NEW EQUIPMENT ACCOUNT	NT	
Receipts—General Income Fund (Transfer)		\$ 8,250.00
Expenditures—Purchases of New Equipment		4,758.54 3,491.46
		\$ 8,250.00

# New York Zoological Society

# SPECIAL PROJECTS ACCOUNT

Unexpended Balance December 31, 1939, Transferred from Special Improvement Account		\$ 2,801.26
Receipts:		
Mrs. John D. Rockefeller, Jr.	\$ 750.00	
Rockefeller Foundation	1,500.00	
Anonymous	105,000.00	
David McAlpin	1,000.00	
L. K. Thorne	9,500.00 222,42	
I. Watson Webb	222.42	
Childs Frick	500.00	
Heads and Horns Collection Account (Transfer)	1,200.00	
Treats and Troins Concerton Recount (Transfer)		·
		122,696.10
Expenditures: Architect's Fees	\$ 3,695.76	
Bird House Improvements	1,277.81	
Motion Picture Project	2,025.00	
African Plains	94,245.42	
Farm Group	500.00	)
Miscellaneous	2,624.88	104,368.87
Unexpended Balance December 31, 1940		18,327.23
Onexpended Barance December 31, 1940		10,527.25
		\$122,696.10
A.C.		
REVOLVING PUBLICATION AC	COUNT	
Unexpended Balance December 31, 1939		\$ 1,945.04
Receipts:		
Sale of "Present Day Mammals"	\$ 15.00	
Sale of "American Bison"	45.73	60.73
		2,005.77
Ewnonditures		
Expenditures: Transfer to General Income Account		\$ 2,005.77

# Forty-Fifth Annual Report

# IMPROVEMENT AND REPAIR ACCOUNT

Unexpended Balance December 31, 1939		\$	1,091.71 8,109.20
		_	9,200.91
Expenditures:  Boilers, Cages and Concrete Work Fences, Guard Wires and Gardening Painting, Walks and Miscellaneous			468.75 976.11 6,947.24
Unexpended Balance December 31, 1940			8,392.10 808.81
		\$	9,200.91
AQUARIUM RESEARCH ACCOL	UNT	\$	3,060.61 873.66
Receipts:		_	3,934.27
\$ 1.1 m. 1	\$ 1,000.00 1,936.92 60.52		2,997.44 6,931.71
Expenditures—Aquarium Research Expenses			3,687.31
New York Savings Bank (Deposit) Unexpended Balance	3,045.22 199.18		3,244.40
		\$	6,931.71

# New York Zoological Society

# CONSERVATION ACCOUNT

Unexpended Balance December 31, 1939	\$ 11,802.14			
Income, Permanent Wild Life Protection Fund \$ 5,262.78				
Income, Stokes Bird Endowment Fund 242.36 Income, Grant Fund for the Protection of Wild Life 502.52	6,007.66			
	17,809.80			
Expenditures—Conservation Activities	3,548.81			
Unexpended Balance December 31, 1940	14,260.99			
	\$17,809.80			
ART GALLERY ACCOUNT				
Unexpended Balance December 31, 1939	\$ 4,699.54			
Expenditures:				
Miscellaneous Expenses Transfer to General Income Account	61.98 4,637.56			
	\$ 4,699.54			
HEADS AND HORNS COLLECTION ACCOUNT				
Unexpended Balance December 31, 1939	\$ 3,785.48			
Expenditures:				
Transfer to Special Projects Account	1,200.00 2,585.48			
	\$ 3,785.48			
LIBRARY ACCOUNT				
Unexpended Balance December 31, 1939	\$ 1,375.65			
Expenditures:				
Books, Pamphlets, etc. Subscriptions to Periodicals	191.47 264.63			
Miscellaneous Expenses	15.77			
	471.87			
Transfer to General Income Account	903.78			
	\$ 1,375.65			

### THE PENSION FUND, FOUNDED BY ANDREW CARNEGIE For the Year Ended December 31, 1940

Funds December 31, 1939: Carnegie Pension Endowment Account: Investments at Cost Uninvested Balance		\$ 96,060.00 4,697.96
		100,757.96
Other Pension Funds:		
Investments at Cost	\$249,393.95 41,354.16	290,748.11
Uninvested Darance		290,7 40.11
		391,506.07
Receipts:	0.711.27	
Dividends from Stock Investments	8,711.26 7,402.29	
Dues from New York Zoological Society Employees	8,759.95	
Profit from Called or Sold Securities	330.00	
Contributed by New York Zoological Society:	330.00	
Four Per Cent of Employees' Salaries \$11,669.17		
Income on Endowment for Pension Fund 8,400.00	20,069.17	
	45,272.67	
Expenditures:	,	
Refunds Account of Resignations		
Pension Disbursements	36,107.89	
Excess of Receipts over Expenditures		9,164.78
Balance December 31, 1940		400,670.85
Accounted for as Follows:		ŕ
Investments at Cost (Quoted Market Value		
\$341,175.25)	386,993.12	
Uninvested Balance	13,677.73	
	6n	\$400,670.85

Note: By resolution of the Executive Committee adopted December 29, 1936, a special fund amounting to \$239,523.45 at December 31, 1940, was set apart from the General Invested Funds of the New York Zoological Society for the use, benefit and purposes of the Pension Fund in accordance with the conditions stated in the resolution.

Cornelius R. Agnew,
Treasurer.

# PEAT, MARWICK, MITCHELL & CO. CERTIFIED PUBLIC ACCOUNTANTS

Seventy Pine Street New York, N. Y.

### ACCOUNTANTS' REPORT

Mr. George C. Clark, Chairman, Auditing Committee, New York Zoological Society, New York, N. Y.

We have examined the Balance Sheet of the New York Zoological Society as at December 31, 1940 and the statements of the transactions of the various funds of the Society and of the Pension Fund for the year ended on that date, have reviewed the system of internal control and the accounting procedures, examined the accounting records and other supporting evidence, and obtained information and explanations from officials and employees of the Society.

The subscriptions, donations and dues reported as received and income from investments have been properly accounted for. The securities and cash balances as at December 31, 1940, as shown in the accounts of the funds presented herewith, have been checked and found in agreement with a list of securities obtained from the custodians and acknowledgments of bank balances obtained from the depositaries. Satisfactory vouchers have been produced in support of the expenditures.

In our opinion, the accompanying Balance Sheet and supporting schedules and related statement of general receipts and expenditures which are prepared on the basis of cash receipts and disbursements with the exception that the amounts due from the City of New York and the accounts payable pertaining to the Maintenance Funds have been accrued, present fairly the condition of the funds as at December 31, 1940, and the transactions relating to the funds of the Society and the Pension Fund for the year then ended.

PEAT, MARWICK, MITCHELL & Co.

New York, N. Y., February 6, 1941.

# REPORT OF THE AUDITING COMMITTEE OF THE NEW YORK ZOOLOGICAL SOCIETY

To the President and Board of Trustees of the New York Zoological Society

Dear Sirs:-

We would report that we have examined the annual audit of the books and accounts of the New York Zoological Society for the year ending December 31, 1940, made by Messrs. Peat, Marwick, Mitchell & Co., accountants and auditors, and herewith submit the same to you as a complete and satisfactory audit of said books and accounts, including the General Endowment Fund, Special Endowment Funds, Income Fund, the Pension Fund Account and the Privilege Account, it appearing that all expenditures and receipts of the various accounts are fully set forth therein, that the cash on hand and at the various depositories has been verified and found correct, and that all securities in which the funds of the Society are invested have been accounted for as reported.

Respectfully submitted,

GEORGE B. CLARK, Chairman
C. SUYDAM CUTTING
WARREN KINNEY

February 21, 1941



# NEW YORK ZOOLOGICAL SOCIETY

## Organized 1895

#### **PRESIDENTS**

I.	Andrew H. Green	1895	to	1897
II.	LEVI P. MORTON	1897	to	1909
III.	HENRY FAIRFIELD OSBORN	1909	to	1925
IV.	MADISON GRANT	1925	to	1937
v.	W. REDMOND CROSS	1937	to	1940
VI.	FAIRFIELD OSBORN	1940		
	FIRST VICE-PRESIDENTS			
т	J. HAMPTON ROBB	1895	to	1897
TĨ.	Henry Fairfield Osborn	1897		
	SAMUEL THORNE	1909		
	MADISON GRANT	1916		
	Frank K. Sturgis	1925		
	W. REDMOND CROSS	1932		
	Kermit Roosevelt	1937		
	ALFRED ELY	1939	10	1///
V 111.		1///		
	SECOND VICE-PRESIDENTS			
	CHARLES E. WHITEHEAD	1895		
II.	John L. Cadwalader	1902		
	Madison Grant	1915		
	Frank K. Sturgis	1916	to	1925
	Henry D. Whiton	1925	to	1930
	KERMIT ROOSEVELT	1930	to	1937
	ALFRED ELY	1937	to	1939
VIII.	Laurance S. Rockefeller	1939		
	TREASURERS			
I.	L. V. F. RANDOLPH	1895	to	1901
	Charles T. Barney	1901		
		1903		
	Cornelius R. Agnew	1922		1,22
		-,		
	SECRETARIES			1000
	MADISON GRANT	1895		
	WILLIAM WHITE NILES	1925		
111.	FAIRFIELD OSBORN	1935	to	1940
	CHAIRMEN, EXECUTIVE COMMITTEE			
I.	CHARLES E. WHITEHEAD	1895	to	1896
II.	HENRY FAIRFIELD OSBORN	1896	to	1903
		1903	to	1907
IV.	HENRY FAIRFIELD OSBORN	1907	to	1909
V.	Madison Grant	1909	to	1937
VI.	W. REDMOND CROSS	1937	to	1940
VII.	Laurance S. Rockefeller	1940		
	DIRECTORS			
т	WILLIAM T. HORNADAY, Zoological Park	1006	**	1026
1.	CHARLES H. TOWNSEND, New York Aquarium	1000	to	1920
	W. Reid Blair, Zoological Park			
	CHARLES M. Breder, Jr., New York Aquarium		to	1740
1 .	•	1937		
	GENERAL DIRECTOR			
	ZOOLOGICAL PARK AND AQUARIUM			
I.	ALLYN R. JENNINGS	1940		
	£			

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SMITH, DR. GEORGE M.
SMITH, DR. HOMER W.
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TEE-VAN, JOHN
THAYER, GERALD B.
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TOWNSEND, DR. CHARLES H.
\*WILSON, PROF. EDMUND B.
YERKES, DR. ROBERT M.

## RESEARCH ASSOCIATES †

SMITH, DR. GEORGE M.

SMITH, DR. HOMER W.

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† Actively engaged in research at the Zoological Park or the Aquarium.

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Associate Founders	9
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Life Members	321
Annual Members	904
Honorary Members	4
Fellows	56
Research Associates	2
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-	

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